

MONTHLY WEATHER REVIEW,

FEBRUARY, 1874.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

The atmospheric changes during the month of February appear to have been controlled to an unusual degree by the influence of the nightly radiation, especially that between the midnight and morning reports. Illustrations of this are found in the rapidity with which areas of rain and snow have extended during those hours, and of which a striking instance is found in the heavy snow-fall of the morning of Wednesday, February 25. At the preceding midnight, rain apparently prevailed from Norfolk to Cairo and southward, while cloudy weather extended over the Middle and Atlantic States. The northern limit of the area of rain had moved northward 250 miles, between 4:35 p. m. and 11 p. m., of the 24th, but by 7:35 a. m. of the 25th, an area of snow prevailed for about 350 miles further northeast, and extended again another 350 miles by 4:35 p. m. of the same day. This rapid extension northward was apparently the consequence of direct radiation during the night, in consequence of which a feeble barometric depression was caused in the Ohio valley, while storm No. XII was drawn all the more rapidly northwestward toward the Middle Atlantic coast.

STORMS.

An unusually large number, namely, twenty-two, of barometric depressions have been noted during February, but of these only the following twelve have seemed worthy of representation on the storm map—most of the others being subsidiary to these, or only appearing on the extreme limits of the weather map. It will be seen that the, for February, unusual number of four important storms, of which two were violent hurricanes, have moved up the Atlantic coast, while three have also pursued a parallel course on the west side of the Alleghanies, and but three have been traced directly eastward over the extreme northwestern Territories and the Lake region.

The storms peculiar to the Gulf Stream would seem to have pursued tracks lying, on the average, somewhat west of their usual course.

This distribution of the storm-tracks is a sufficient indication of the peculiar character of the weather for this month, and the study of the reports received by mail from the Bermudas, as well as of the logs of vessels, shows the extreme importance of these islands as an outpost for the anticipation of such storms as advance northward upon the New England coast.

I. This storm was apparently in Texas on the 31st of January, and on the 1st of February was in Louisiana, and was already followed by the customary cold weather on the Texas coast. In its advance northeastward to the Lower Lakes, it was preceded by